

EXHIBIT "E"

COPY

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CLERK, U.S. DISTRICT COURT
DISTRICT OF HAWAII

Attorneys for Plaintiff
RONALD L. OBREY, JR.

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF HAWAII

RONALD L. OBREY, JR.,

Plaintiff,

v.

HANSFORD T. JOHNSON, in his
capacity as the Acting
Secretary of the Navy,

Defendant.

) CIVIL NO. 02-00033 MLR LEK
)
) NOTICE OF MOTION; PLAINTIFF'S
) MOTION TO STRIKE EXPERT
) DISCLOSURE OF DEFENDANT AND TO
) EXCLUDE DEFENSE EXPERT'S
) TESTIMONY AT TRIAL; EXHIBITS
) "A" AND "B"; MEMORANDUM OF LAW
) IN SUPPORT OF MOTION;
) CERTIFICATE OF SERVICE
)
) DATE:
) TIME:
) JUDGE:
)
) Trial Date: JUNE 6, 2005
)

4835

NOTICE OF MOTION

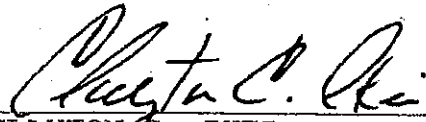
TO: EDWARD H. KUBO, JR.
United States Attorney, District of Hawaii
THOMAS HELPER
EDRIC CHING
Assistant U.S. Attorneys
Room 6-100, PJKK Federal Building
300 Ala Moana Blvd.
Honolulu, Hawaii 96850-6100

EXHIBIT "E"

Attorneys for Defendant
HANSFORD T. JOHNSON,
in his capacity as the
Acting Secretary of the Navy

PLEASE TAKE NOTICE that on the ____ day of _____ 2015,
at _____, or as soon thereafter as counsel can be heard, the
undersigned will bring the enclosed motion for hearing before the
_____, Judge of the above-entitled Court, in his
courtroom, at PJKK Federal Building, 300 Ala Moana Boulevard,
Honolulu, Hawaii 96850.

DATED: Honolulu, Hawaii, May 18, 2005.



CLAYTON C. IKEI
JERRY F.S. CHANG

Attorneys for Plaintiff
RONALD L. OBREY, JR.

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF HAWAII

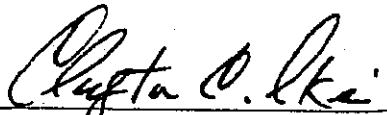
RONALD L. OBREY, JR.,	) CIVIL NO. 02-00033 MLR LEK
)
Plaintiff,	) PLAINTIFF'S MOTION TO STRIKE
	) EXPERT DISCLOSURE OF DEFENDANT
v.	) AND TO EXCLUDE DEFENSE EXPERT'S
	) TESTIMONY AT TRIAL
HANSFORD T. JOHNSON, in his)
capacity as the Acting)
Secretary of the Navy,)
)
Defendant.)
)

PLAINTIFF'S MOTION TO STRIKE EXPERT DISCLOSURE OF DEFENDANT AND
TO EXCLUDE DEFENSE EXPERT'S TESTIMONY AT TRIAL

Ronald L. Obrey, Jr., by and through his counsel, hereby moves this Honorable Court for an order striking the Expert Disclosure of Defendant and an order excluding the Defendant's expert from testifying at trial.

This Motion is made pursuant to Rule 26(a)(2)(C) and is supported by the attached Memorandum of Law.

DATED: Honolulu, Hawaii, May 18, 2005.



CLAYTON C. IKEI
JERRY V.S. CHANG

Attorneys for Plaintiff
RONALD L. OBREY, JR.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAII

RONALD L. OBREY, JR.,	) CIVIL NO. 02-00033 MLR LEK
)
Plaintiff,	) MEMORANDUM OF LAW IN SUPPORT OF
	) MOTION
v.)
)
HANSFORD T. JOHNSON, in his)
capacity as the Acting)
Secretary of the Navy,)
)
Defendant.)
)

MEMORANDUM OF LAW IN SUPPORT OF MOTION

I.

STATEMENT OF THE CASE

On April 24, 2005, the Honorable Helen Gillmor signed an order approving the stipulation of the parties that the Defendant shall have until June 17, 2003 to submit its Expert Witness Designation. See Attached Exhibit A. On May 17, 2005, Plaintiff's counsel received a report dated May 17, 2005 by Defendant's recently designated expert. See attached Exhibit B.

The report of the Defendant's designated expert has been disclosed almost two years after Judge Gillmor's approved deadline of June 17, 2003, and less than 90 days prior to trial in the above-entitled matter which is set for June 6, 2005.

Plaintiff would submit that the Defendant has by its own inaction, waived an expert witness in the forthcoming trial, has inexcusably violated the order of District Judge Gillmor, and by

its late submission of its recently retained expert's report, has prejudiced the Plaintiff.

II.

ARGUMENT

Rule 26(a)(2)(C) states in pertinent part:

These disclosures shall be made at the times and in the sequence directed by the Court. In the absence of other directions from the Court or stipulation by the parties, the disclosures shall be made at least 90 days before the trial date or the date the case is to be ready for trial or, if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party under paragraph (2)(B), within 30 days after the disclosure made by the other party. The parties shall supplement the disclosures when required under subdivision (e)(1).

It is abundantly clear that the Report of the Defendant's recently retained expert was disclosed almost 2 years after the court-ordered deadline of June 17, 2003, and less than 90 days prior to the scheduled trial. In White v. Volvo Trucks of North America, Inc., 211 F.R.D. 668 (M.D. Ala., 2002), the Plaintiff had disclosed her expert witness, but had failed to disclosed his report. In granting the Defendants' Motion to Strike the Expert Witness and prohibit the calling of the Plaintiff's expert witness at trial, the Court stated:

It has been the long-standing and consistent practice of this court to enter deadlines for disclosure of witnesses after obtaining proposals from counsel for the parties, and to then enforce those deadlines. The original deadline for disclosure of the identity of expert witnesses and the furnishing of reports was set on the date requested by counsel, including counsel for the Plaintiff. That deadline was

then extended at Plaintiff's counsel's request, yet it was not met. Plaintiff's counsel has shown no reason that the deadline could not have been met with the exercise of due diligence, but merely argued that the Defendants have not been prejudiced. The Defendants contend strongly that they would, in fact, be prejudiced because the allowance of such late disclosure would substantially interfere with trial preparation. If this court were to allow such late disclosure under the facts in this case, it would be most difficult for the court to insist on compliance with deadlines set in its many other cases. Allowance of use of this expert witness in this case would, in effect, render such deadlines set in Rule 16 Scheduling Orders meaningless. Thus, the integrity of scheduling orders in all cases before the court, and not just in this case, is implicated.

211 F.R.D. 668 at 669.

Likewise, in Congressional Air, Ltd. v. Beech Aircraft Corporation, 176 F.R.D. 513 (D.Md., 1997), the Plaintiff had delayed the filing of its expert's rebuttal report for six months, after the discovery deadline and shortly before trial. In support of its ruling to exclude the rebuttal report and exclude its contents as substantive evidence in the trial, the trial court stated:

In light of the pending trial date, the Court does not consider certain alternatives reasonable under the circumstances. Discovery closed more than six months ago. Beech should not be required to conduct an "under-the-gun" deposition and find rebuttal expert opinions at this stage of the litigation. Beech has formulated its trial strategy over many months, and to allow a new theory of liability in the eleventh hour would result in substantial investments of additional time, labor and money. Further delay of this case is likewise unreasonable. On June 18, 1997, this matter was referred to me by the Honorable Deborah K. Chasnow for trial. On July 28, 1997, a mutually agreed upon trial date was established with tight deadlines for the

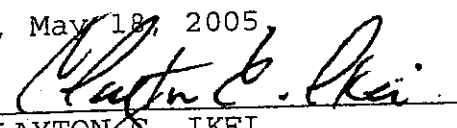
filing of the Pre-Trial Order and the scheduling of the Pre-Trial Conference. The report of Beech's expert was filed and available for Congressional's expert in late March, 1997. Inexplicably, Congressional's expert did not receive this report or other materials until September, 1997. This non-disclosure is not harmless and, Congressional has not presented "substantial justification" for its failure to provide timely disclosure. With only a few weeks before the start of trial, Congressional has attempted to place upon Beech a "heavy burden of meeting the new evidence at trial with its own expert's analysis." See *Finley v. Marathon Oil Co.*, 75 F.3d 1225 (7th Cir.1996). Under Fed.R.Civ.P. 37(c)(1), the exclusion of the evidence is mandatory.

176 F.R.D. 513 at 517.

In the instant case, it is clear that the reason for the recent disclosure of an expert's report is premised on the Defendant's tactical decision to forego an expert witness and move to exclude the Plaintiff's statistician's testimony at trial. However, the Ninth Circuit Court of Appeals has found that the exclusion by the trial court of Plaintiff's statistician was reversible error. *Obrey v. Johnson*, 400 F.3d 691 (9th Cir., 2005) Having made a tactical miscalculation, the Defendant now seeks to rectify its misjudgment well past the cut-off date for disclosure of experts reports to the prejudice of the Plaintiff.

For the foregoing reasons, the Plaintiff requests that this Court enforce its own rules of procedure.

DATED: Honolulu, Hawaii, May 18, 2005.


CLAYTON C. IKEI
Attorney for Plaintiff

CLAYTON C. KEE

APR 20 2003

FILED IN THE
UNITED STATES DISTRICT COURT
DISTRICT OF HAWAII

2002v00016

EDWARD H. KUBO, JR. 2499
United States Attorney
District of Hawaii

APR 21 2003

at 3 o'clock and 10 min. P.M.
WALTER A. Y. H. CHINN, CLERK

MATTHEW J. RINKA
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Attorneys for Defendant
SECRETARY OF THE NAVY

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAII

RONALD L. OBREY, Jr.,

Plaintiff,

vs.

HANSFORD T. JOHNSON, in his
capacity as the Acting
Secretary of the Navy,

Defendant.

CIVIL NO. 02-00033 HG-LEK

STIPULATION TO EXTEND
DEFENDANT'S EXPERT WITNESS
DESIGNATION DEADLINE; ORDER

STIPULATION TO EXTEND DEFENDANT'S
EXPERT WITNESS DESIGNATION DEADLINE

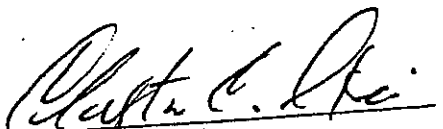
Comes now Plaintiff and Defendant, by and through their
undersigned counsel, and hereby stipulate, by and between their
respective counsel as follows:

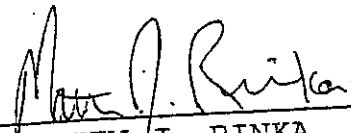
1. The parties hereby stipulate to continue the
Defendant's Expert Witness Designation deadline from April 17,
2003, until June 17, 2003.

2. All other dates, including the scheduled trial dates, remain the same.

DATED: APR 24 2003, at Honolulu, Hawaii.

EDWARD H. KUBO, JR.
United States Attorney
District of Hawaii


Clayton Ikei
Jerry P.S. Chang
Attorneys for Plaintiff

By 
MATTHEW J. RINKA
Sp. Assistant U.S. Attorney
Attorneys for Defendant

APPROVED AND SO ORDERED:

HELEN GILLMOR

UNITED STATES DISTRICT JUDGE

Ronald L. Orey, Jr. v. Hansford T. Johnson
Civil No. 02-00033 HG-LEK
"Stipulation to Extend Dispositive Motion Deadline"

Ronald L. Obrey, Jr.
v.
Hansford T. Johnson, in his capacity
As Acting Secretary of the Navy

Civil No. 02-00033 HG-LEK

Report of Gary R. Skoog, Ph.D.

May 17, 2005

Introduction

Pursuant to Rule 26 of the Federal Rules of Civil Procedure, the following constitutes my preliminary report in this litigation.

I. Qualifications

My qualifications are described in my Curriculum Vitae, which is attached as Appendix "1".

II. Assignment

I have been asked by counsel representing the Acting Secretary of the Navy to examine the statistical methodology used by Mr. James E. Dannemiller ("Dannemiller") relating to the statistical analyses he performed in his declaration of May 14, 2003 and report of February 19, 2003. Mr. Dannemiller served as plaintiff's expert. I have been asked to offer my comments and opinions with respect to Mr. Dannemiller's conclusions, opinions and methodology, but not to undertake my own independent statistical study. Such a study would include additional data described below.

I received from counsel an Excel spreadsheet prepared by Mr. Dannemiller, and have formed my opinions from methodological considerations and the analysis of his dataset. I have not thoroughly checked its entries for accuracy against the data supplied by the Navy, nor completely for internal consistency, but I have spot checked it. I have neither asked for nor received the kinds of additional information which would be necessary, in my opinion, to conclude that the evidence in this case requires rejection of the null hypothesis that the Navy (cf. point 12 below) did not discriminate in its hiring selections.

In addition to the opinions expressed in this Report, I am told that I may be asked to render additional opinions within my expertise in a deposition and/or in a trial, as well as in response to any supplemental report(s) or testimony given by plaintiff's expert(s), if any.

My opinions are contained in this prose, along with a one page Appendix which displays the cases I analyzed and shows the value of the chi-squared test statistic in each case individually.

III. Opinions and Bases

1. Mr. Dannemiller's analysis does not articulate any formal statistical model, and thereby does not comport with the methodology commonly used by statistical or econometric experts. By a model I mean the specification of the process by which the data populating the cells of his four two by two contingency matrices was generated. The cells might have come as realizations of a Poisson process, or as draws from two binomial distributions, or from multinomial sampling. Thus, no likelihood function, the beginning of all statistical analysis, can be written down.

2. Because of the point made in 1. above, to proceed, I am left to conjecture a statistical model that he may have had in mind. To the extent that I have guessed incorrectly, I reserve the right to supplement my opinions within a reasonable time period of learning of such a model specification.

3. The most likely candidate for the model Mr. Dannemiller may have had in mind is the testing the equality of means from two binomial distributions. Such a model could be tested in large samples by using Mr. Dannemiller's 2 by 2 contingency tables' Pearson test statistic. I show that this model, while it may occur in statistics textbooks, is inappropriate to use in his Figures 1, 2, 3 and 4 because it will be shown that this statistical model is inconsistent with the underlying process which generated the data. In addition to this being bad statistics, it is inconsistent with subject matter considerations generally, which require that the statistical model comport as nearly as possible with the realistic processes.

4. Mr. Dannemiller points out at page 4 of his report that the Pearson test goes back to 1900. He does not point out that Karl Pearson (1900), the test's originator, claimed that his test statistics, relied on by Mr. Dannemiller, had the $\chi^2(3)$ (read: chi-squared with 3 degrees of freedom) distribution. In fact, the correct distribution, as proved by R.A. Fisher (1922, 1924), was $\chi^2(1)$, chi-square with one degree of freedom. Fortunately for Mr. Dannemiller, the computer package he chose was aware of, and corrected this historic mistake. In fact, the Pearson test statistic's distribution is asymptotic, meaning that it has the claimed properties in "large" samples. In 1934, Yates proposed a "continuity corrected" version of the Pearson test, which I use in this paper when I report a test statistic on any such 2 by 2 contingency table. Mr. Dannemiller's purchased SPSS software in fact reports this statistic, known as the Yates statistic, as well as the results of the classic likelihood ratio (LR) and Fisher exact tests, which appear in his report but about which he says nothing.

5. Mr. Dannemiller's data set contains 159 cases from a "first list" and 11 cases from a "second list" 170 cases in all, including data on 1112 individual selection candidates for various grade 13, 14 and 15 positions. Of these, there was no selection made in 8 cases, for which 45 individuals applied. I showed data on race lacking for 51 individuals, while Mr. Dannemiller indicated 33 such missing observations. Mr. Dannemiller reports the results of 4 "tests of independence" covering 710, 624, 752 and 1054 persons. Since there is substantial overlap of these individuals, these tests are not themselves independent

statistically; it would be more appropriate to devise multiple tests, if he wishes to report such, over non-overlapping sets of individuals. The methodological points I make in this report apply to each and every one of his tests, and for expositional purposes I will focus on his Figure 2.

In several of these 170 selections (also referred to as cases), there were as many candidates selected as there were positions open, usually one but sometimes more than one; these were eliminated from my study, since no discrimination is possible in the selection involved in such cases (although Mr. Dannemiller's figure 1 attempts to test the selection into these cases). Additionally, in 23 cases no whites applied, so these cases were eliminated; again, no selection discrimination is possible – a non-white must get the position. In case #124 (using Mr. Dannemiller's data and numbering throughout), two whites and no non-whites applied, so it too was eliminated.

Like Mr. Dannemiller, I focus on those cases where one or more whites were competing with one or more non-whites, someone was selected, and we had complete data on the race of all candidates. I identified 58 such cases involving 634 persons. My attempt was to exposit my conclusions by replicating Mr. Dannemiller's Figure 2 analysis. I identified the same number of selections, 63, as appear in Mr. Dannemiller's report. We differed slightly on the details – I had 27 white selections, he had 25, and I had 36 non-white selections while he had 38. I had 128 whites not being selected, while he had 111. I had 443 non-whites not being selected while he had 450. In all, 634 people appear in my analysis, while 624 appear in his. Since he did not list the cases he used, I cannot at this time check this minor discrepancy; in any event it is not the main focus of my report or opinions.

There are various additional data discrepancies which I note here. For example, in 13 cases, the data entered for the successful candidate included a value of *nwht* the number of whites in the pool, as well as *noapp*, the total number of applicants in the pool, from which the number of non-whites may be calculated. However, there was missing race data in one or more of the associated individual records for the unsuccessful candidates, so one wonders how the data on the counts of the numbers of whites and non-whites could have been performed. Such cases were excluded in my analysis.

The results of the process I described, when the 58 cases selected are combined or pooled into a table like Mr. Dannemiller's Figure 2, are:

Applicants for One or Several Positions
One or More Whites and One or More Non-Whites in the Competition
Competing for Positions that Was Filled

	Selected		Not Selected	Totals
Non-Whites	36	<	443	479
Whites	27	<	128	155
Totals	63	>	571	634

Mr. Dannemiller's calculation of a Pearson (or any other) test on this pooled, aggregated or collapsed contingency table implicitly assumes that each of the 634 candidates had the same probability of selection. If all of the selections had involved the same number of openings (generally one, but not always) and had involved the same number of applicants (or if the applicants were always the same fraction of the number of openings), and if the white and non-white applicant pools were equally qualified, this would be an acceptable statistical procedure.

6. Examination of the data reveal that the number of candidates for selection in our study ranged from 2 to 30. Consider the first of these, case #7. There 3 whites competed against 9 non-whites, and a (Japanese) non-white was chosen. The implicit and required assumption for Dannemiller's methodology to be valid in the analysis of this first case considered in isolation is that each candidate had a $1/12$ of 8.33% chance of winning. In the next case #8, 1 white competed against 8 non-whites, and a (Filipino) non-white won. For this case in isolation, the implicit required assumption for Dannemiller's methodology is that each of these 9 candidates had a $1/9$ of 11.1% chance of winning. Now the probabilities in cases #7 and #8, 8.33% and 11.1%, are already necessarily different, so long as the number of applicants varies. In case #153, each candidate had a 3.33% chance — even more discrepant. His statistical model assumes, on the contrary, that the probability of each candidate in case #7, case #8, and every other case has the same chance of winning, which his methodology would take to be $63/664$ or 9.94% (or with his data set, $63/624 = 10.1\%$). As we have seen, this is logically impossible. Mr. Dannemiller's tests are thus incorrectly statistically specified, and his conclusions correspondingly become suspect.

This observation applies to his Figures 2, 3 and 4, which analyze the results of outcomes, given that candidates had been considered for selection. His Figure 1 cross classifies whites and non-whites by whether they found themselves in a non-competitive selection or in a competitive selection. There is no natural pool that was present previously about which we may think about this selection decision. No pattern or practice is specified or articulated by which people are supposedly "assigned" to pools, and, indeed, the variable *mid* in the database, which neither Mr. Dannemiller nor I used, indicates that some positions were filled from within and some from without the hiring unit. The fact that Mr. Dannemiller has not specified a statistical model makes this hypothesis test virtually uninterpretable. I reserve my right to comment and supplement if he articulates a model. Mr. Dannemiller appears to conceptualize there being one large grouping of all of the non-competitive selections, NC say and the complementary grouping of all of the competitive selections, C say, with probabilities p_w and p_{nw} , respectively, that each white and each non-white were selected for C. Since the selection process is completely unspecified, it is hard to proceed. We could consider the non-competitive selections of case #1, for a supervisory nuclear engineer at grade 13, case #52, a supervisory nuclear engineer at grade 14 and case #61, a production resources manager, grade 15. What sense does it make to consider a model in which each white had the same probability p_w of

having been chosen for each of these three positions and each non-white had a (potentially different) probability p_{nw} of having been chosen for each of these positions. Common sense would suggest that those in consideration for a grade 15 position would be grades 14 or 15, and have no interest in a grade 13, and be given no such consideration. The probabilities will not be the same for any individual, and it makes no sense to take the next step and attempt to compare nonexistent probabilities across groups.

7. I return to the core of Mr. Dannemiller's opinions, Figures 2-4. In fact, we have seen that case #7 gives rise to a 2 by 2 contingency table, which we might index by the triple (1,12,3) to reflect three additional pieces of information which distinguishes it from other tables generally: there would be 1 successful candidate (the first element), there were 11 candidates (the second co-ordinate), and 3 of them were white (the third co-ordinate). Thus, Mr. Dannemiller's database consists of a family of 2 by 2 tables, each indexed by a triple ($numsel$, $noapp$, nwh). In the next case #8 is another 2 by 2 table, with additional parameters or triple (1,9,1). Continuing, there are 58 different 2 by 2 tables. The statistical structure of the problem is a multidimensional table of size 2 by 2 by 58. The approach taken by Mr. Dannemiller is to collapse this multidimensional table to a single 2 by 2 table. Collapsing generally involves a loss of information. His approach is in general not statistically permissible without additional conditions in place. Mr. Dannemiller did not state any such conditions, nor did he check for the presence of any conditions which would validly permit him to perform this aggregation. Consequently, his analysis, even on this best case scenario, is unjustified, and should correspondingly be given little weight. This point is elaborated upon below, after indicating the kinds of paradoxes which can happen when unbalanced designs are encountered.

8. The contingency table literature contains examples, some of which have arisen in lawsuits, which show the counter-intuitive results that can come from failing to make sure that aggregation is permissible. The phenomenon is now known as *Simpson's Paradox*, after E.J. Simpson's 1951 paper. The following example is loosely based on a discrimination suit that was brought against the University of California, Berkeley described in Bickle *et al.* (1975). It is presented by Gary Malinas of the University of Queensland and John Bigelow of Monash University at (<http://plato.stanford.edu/entries/paradox-simpson/>).

"Suppose that a University is trying to discriminate in favor of women when hiring staff. It advertises positions in the Department of History and in the Department of Geography, and only those departments. Five men apply for the positions in History and one is hired, and eight women apply and two are hired. The success rate for men is twenty percent, and the success rate for women is twenty-five percent. The History Department has favored women over men. In the Geography Department eight men apply and six are hired, and five women apply and four are hired. The success rate for men is seventy-five percent and for women it is eighty percent. The Geography Department has favored women over men. Yet across the University as a whole 13 men and 13 women applied for jobs, and 7 men and 6 women were hired. The success rate for male applicants is greater than the success rate for female applicants.

	Men		Women
History	1/5	<	2/8
Geography	6/8	<	4/5
University	7/13	>	6/13

How can it be that each Department favors women applicants, and yet overall men fare better than women? There is a 'bias in the sampling', but it is not easy to see exactly where this bias arises. There were 13 male and 13 female applicants: equal sample sizes for both groups. Geography and History had 13 applicants each: equal sample sizes again. Nor does the trouble lie in the fact that the samples are small: multiply all the numbers by 1000 and the puzzle remains. Then the reversal of inequalities becomes fairly robust: you can add or subtract quite a few from each of those thousands without disturbing the Simpson's Reversal of Inequalities.

The key to this puzzling example lies in the fact that *more women are applying for jobs that are harder to get*. It is harder to make your way into History than into Geography. (To get into Geography you just have to be born; to get into History you have to do something memorable.) Of the women applying for jobs, more are applying for jobs in History than in Geography, and the reverse is true for men. History hired only 3 out of 13 applicants, whereas Geography hired 10 out of 13 applicants. Hence the success rate was much higher in Geography, where there were more male applicants."

Men			
	Accepted		Rejected
History	1	<	4
Geography	6	<	2
University	7	>	6
Women			
	Accepted		Rejected
History	2	<	6
Geography	4	<	1
University	6	>	7

In the tables above, men applying to history comprise 5 of the total of 13 applicants, or 38.46%. If the tables were balanced, men applying to geography would represent this same percentage. In fact, 8 of the 13 or 61.53% of the geography applicants are men, so the table is not balanced.

The troubling example above shows that when the individual contingency tables do not possess "balance" or "homogeneity" the proportions in the totals can give a misleading picture about the underlying structure, and can even reverse it. The issue goes beyond mere "statistical significance" – the small sample sizes in the sample above are not

statistically significant, but if scaled up by a large enough factor they would be significant.

9. I have performed chi-squared tests on each of the 58 individual selection decisions involving at least one white and at least one non-white candidate, for which complete race data was available, and for which a selection was made. None of these individual selections proved to be statistically significant at the 5% level. My appendix shows the Pearson continuity-corrected or Yates (1934) test statistic in each case.

10. Mr. Dannemiller pools or combines the individual tests mentioned above. Let us return to the first two such tests, cases 7 and 8, and display the data:

Case 7			
	Number Selected	Number Not Selected	Row Totals
Non-Whites	1	6	7
Whites	0	3	3
Column Totals	1	9	10

Case 8			
	Number Selected	Number Not Selected	Row Totals
Non-Whites	1	7	8
Whites	0	1	1
Column Totals	1	8	9

Mr. Dannemiller's procedure would pool these tables (and all others) by adding the entries:

Cases 7 and 8 Pooled			
	Number Selected	Number Not Selected	Row Totals
Non-Whites	2	13	15
Whites	0	4	4
Column Totals	2	17	19

Now it is recognized in the statistical literature that one cannot generally do this. I offer two references, but many could be given. Everitt (1977) p. 26 writes "This procedure (pooling) is legitimate only if corresponding proportions in the various tables are alike. Consequently, if the proportions vary from table to table, or we suspect that they vary, this procedure should not be used, since the combined data will not accurately reflect the information contained in the original tables." Gart (1992) operationalizes "corresponding proportions" to be a "balanced design" and proves theorems about the estimation properties of the pooled estimator, relating it to the underlying structural parameter of

association which Dannemiller is trying to estimate. In other words, for Dannemiller's pooling estimates to make statistical sense, he needs some justification, presumably along the lines suggested by these authors. We next check whether this justification is present in the data in this case in the first 2 tables above.

Comparing the number of case 7 non-whites to the total of non-whites, we have $7/(7+8)$ or $7/15 = 46.67\%$ of the total non-whites are in case 7. Gart's balanced design definition requires that this same percentage of all whites be present in case 7. However, the percentage of all non-whites present in case #7 is $3/(3+1)$ or 75% . Thus, the balanced design is lacking across just the first of the two tables. Since the condition must hold for all of the tables which are pooled, it is clear that there is no chance for the Dannemiller procedure to be justified.

10. Thus, even if Mr. Dannemiller could find a way to validly combine, say, the grade 13 applicants into a total, there is no guarantee that the result would be statistically significant or economically significant. His statistical procedure is more extreme still: he additionally combines the grade 13, 14 and 15 selection decisions into a giant pool. This requires additional and further aggregation conditions, of which he has none. Additionally, selection into these grades is qualitatively very different; there are fewer opportunities as one goes from grade 13 to grade 14 to grade 15, the decisions are made differently, by different decision-makers (or groups thereof), and the competition for the positions increases in light of their relative scarcity.

11. The contingency table associated with the plaintiff's selection decision is:

Ronald L. Obrey's Case			
	Number Selected	Number Not Selected	Row Totals
Non-Whites	0	3	3
Whites	1	6	7
Column Totals	1	9	10

Here, since 7 of the 10 applicants were white, the chance that a white will be selected assuming, as the Dannemiller analysis does, *arguendo* that all candidates are equally qualified, is 70% . That a white was chosen was to be expected, and hardly constitutes evidence of discrimination. In fact, test statistic is only $.21$, and it would need to be 3.84 to rise to the level of rejection of the null hypothesis.

12. Even if all of the previous statistical difficulties could be overcome, there remains a gaping problem with the Dannemiller statistical analysis. It completely omits any consideration of the many valid determinants of selection such as education (including advanced degrees), measures of experience (including responsibility and breadth of background) and performance (productivity ratings, any job measurements, and/or supervisory ratings) of the candidates. By assuming that all minimally qualified

applicants were equally likely to have been selected, or that the distribution of valid determinants was equally distributed across each applicant pool, the statistical model Mr. Dannemiller analyzed differs from both the way the decisions were legitimately made and common experience. The Navy is choosing the *best* candidate, and not merely selecting a candidate at random, as if drawing a ball from an urn. The selection process would be expected to be sequential, focusing on a subset of those candidates passing a first screening. In Mr. Obrey's case, I am told that the successful candidate had an MBA, while Mr. Obrey had a community college degree. By not incorporating such *bona fide* and non-discriminatory variables into the analysis, the statistical analysis becomes so suspect that it should be given very little weight. Were I to have undertaken such a study, I would have included these data in my analysis.

IVa. Non-Statistical References

1. James E. Dannemiller's "A Report of Results of Statistical Analysis of Hiring Data Provided by Pearl Harbor Naval Shipyard," Prepared by SMS Research and Marketing February 19, 2003.
2. Excel spreadsheet file produced by counsel from 1.
3. Declaration of James E. Dannemiller of May 14, 2003 including interrogatory responses (21 pages), Federal defendant Gordon R. England's second amended responses to plaintiff's first request for interrogatories, including bates 01360-01383, chart of underlying employment data, , 35 pages of Mr. Dannemiller's spreadsheet printout, un-numbered pages of Mr. Dannemiller's SPSS program output.
4. Federal defendant Gordon R. England's responses to plaintiff's first request for interrogatories
5. Conversations with counsel about the hiring framework.

IVb. Statistical References

- Bickel, P. J., Hjammel, E. A., and O'Connell, J. W., 1975, "Sex Bias in Graduate Admissions: Data From Berkeley", *Science* 187: 398-404.
- Everitt, B.S., *The Analysis of Contingency Tables*, London: Chapman and Hall, 1977. (1987).
- Fisher, R.A., "On the interpretation of chi-square from contingency tables, and the calculation of P," *Journal of the Royal Statistical Society*, vol. 85, (1922), pp. 87-94.
- Fisher, R.A., "The conditions under which chi-square measures the discrepancy between observation and hypothesis," *Journal of the Royal Statistical Society*, vol. 87, (1924), pp. 442-450.

Fisher, R.A., 1934, (1970, 24th edition.), *Statistical Methods for Research Workers*. (originally published in 1925) Edinburgh: Oliver and Boyd.

Fisher, R.A., 1935, *The Design of Experiments*. (8th edition, 1966) Edinburgh: Oliver and Boyd.

Malinas, Gary and John Bigelow, <http://plato.stanford.edu/entries/paradox-simpson/>.

Gart, John G., "Pooling 2 x 2 Tables: Asymptotic Moments of Estimators", *Journal of the Royal Statistical Society, Series B*, vol. 54(2), 1992 pp. 531-539.

Pearson, K., 1900, "On a criterion that a given system of deviations from the probable in the case of a correlated system of variables is such that it can reasonably be supposed to have arisen from random sampling", *Philos. Mag., Series 5*, 50: p. 157-175

Pearson, K., 1922, "On the Chi-squared test of goodness of fit", *Biometrika* 14, pp. 186-191.

Simpson, E.H., 1951, "The interpretation of interaction in contingency tables", *Journal of the Royal Statistical Society, Series B*, 13: 238-241.

Yates, F., 1934, "Contingency tables involving small numbers and the chi-square test", *Journal of the Royal Statistical Society, Supplement 1*, p. 217-235.

V. Compensation

In connection with my providing consulting services for the Defendants in this litigation, including my efforts in the preparation of this Report and my time in rendering testimony, my time is being billed as follows:

1. For time spent in study, preparation of Report, etc.: \$250 per hour;
2. For additional consulting services: \$250 per hour;
3. For time spent in giving testimony in a deposition, including preparation: \$250 per hour;
4. For time spent in giving trial testimony, including preparation: \$250 per hour.

VI. Publications (preceding ten years)

See my curriculum vitae, Appendix "1" hereto.

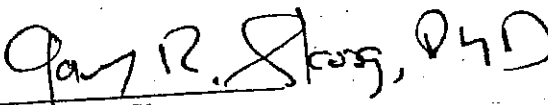
VII. Prior Expert Witness Testimony (preceding 4 years)

See Appendix "2" hereto.

VIII. Data Used in My Analysis of 68 Cases

See Appendix "3" hereto.

Dated: Glenview, Illinois
May 17, 2005


Dr. Gary R. Skoog

Appendix "3"

										Non-Whites	Whites	Whites	Whites	
										Not Selected	Not Selected	Not Selected	Not Selected	
7	1	12	1	5	1	3	0	7	1	8	0	3	0.3636	
8	1	9	1	3	1	1	0	19	1	7	0	1	1.7227	
9	1	3	1	1	1	2	0	28	0	1	1	1	0.1875	
10	1	4	1	5	1	1	0	31	1	2	0	1	0.4444	
13	1	4	1	3	1	1	0	42	1	2	0	1	0.4444	
14	1	14	1	1	1	4	0	46	0	10	1	3	0.2423	
15	1	13	1	5	1	2	0	60	1	10	0	2	0.9972	
16	1	14	1	5	1	2	0	73	1	11	0	2	1.1218	
17	1	11	1	5	1	1	0	87	1	9	0	1	2.2275	
22	1	9	1	11	1	1	0	137	1	7	0	1	1.7227	
25	1	16	1	1	1	2	0	148	0	14	1	1	1.3714	
26	1	16	1	1	1	1	0	164	0	15	1	0	3.4844	
27	1	20	1	5	1	3	0	180	1	16	0	3	1.0114	
28	7	11	1	1	1	1	0	206	0	10	1	0	2.2275	
29	2	16	1	1	1	2	0	212	0	14	1	1	1.3714	
30	1	7	1	1	1	2	0	227	0	5	1	1	0.2625	
34	1	7	1	9	1	1	0	238	1	5	0	1	1.2153	
39	1	13	1	2	1	1	0	266	1	11	0	1	2.7309	
41	1	7	1	5	1	1	0	280	1	5	0	1	1.2153	
44	1	4	1	1	1	1	0	292	0	3	1	0	0.4444	
54	2	2	1	5	1	1	0	315	1	0	0	1	0.0000	
64	1	25	1	5	1	5	0	328	1	19	0	5	0.5859	
65	1	24	1	5	1	5	0	353	1	18	0	5	0.5382	
66	7	24	1	3	2	5	0	383	2	17	0	5	0.0230	
70	4	4	1	5	1	1	0	407	1	2	0	1	0.4444	
71	21	21	1	2	1	6	0	428	1	14	0	6	0.2363	
74	19	27	1	1	1	5	0	459	0	22	1	4	0.6821	
75	10	11	1	1	1	2	0	477	0	9	1	1	0.7486	
76	2	5	1	1	1	2	0	480	0	3	1	1	0.0521	
79	1	4	1	3	1	1	0	489	1	2	0	1	0.4444	
82	4	9	1	11	1	1	0	500	1	7	0	1	1.7227	
84	2	8	1	9	1	1	0	508	1	6	0	1	1.4694	
86	1	4	1	1	1	3	0	516	0	1	1	2	0.4444	
89	5	5	1	5	1	2	0	555	1	2	0	2	0.0521	
90	6	17	1	1	1	11	0	561	0	6	1	10	0.1006	
92	1	2	1	1	1	1	0	574	0	1	1	0	0.0000	
105	4	7	1	2	1	2	0	598	1	4	0	2	0.2625	
107	5	9	1	1	1	2	0	614	0	7	1	1	0.5022	
109	5	13	1	1	2	4	0	644	1	8	1	3	0.0369	
110	4	13	1	1	1	5	0	656	0	8	1	4	0.0609	
111	4	21	1	3	4	8	0	669	1	12	3	5	1.2479	
113	10	15	1	5	1	1	0	706	1	13	0	1	3.2334	
115	1	8	1	1	1	3	0	714	0	5	1	2	0.0762	
121	1	3	1	4	1	1	0	732	1	1	0	1	0.1875	
128	1	9	1	2	1	1	0	765	1	7	0	1	1.7227	
129	1	4	1	3	1	1	0	774	1	2	0	1	0.4444	
134	1	5	1	5	1	1	0	792	1	3	0	1	0.7031	
149	4	7	1	2	1	2	0	863	1	4	0	2	0.2625	
151	2	3	1	9	1	1	0	876	1	1	0	1	0.1875	
152	2	4	1	1	1	2	0	879	0	2	1	1	0.0000	
153	15	30	1	1	1	7	0	896	0	23	1	6	0.4112	
154	10	16	1	1	1	4	0	921	0	12	1	3	0.3556	
159	10	15	1	5	1	2	0	996	1	12	0	2	1.2466	
1001	8	10	1	1	1	7	0	1009	0	3	1	6	0.2116	
1006	14	23	1	1	1	12	1	1053	0	11	1	11	0.0020	
1009	4	5	1	1	1	2	0	1099	0	3	1	1	0.0521	
1010	6	7	1	5	1	1	0	1106	1	5	0	1	1.2153	
1011	4	5	1	5	1	1	0	1111	1	3	0	1	0.7031	
										36	443	27	128	

Notes:

1 = Caucasian

2 = Chinese

3 = Filipino

4 = Hawaiian

5 = Japanese

9 = OPI (Other Pacific Islander)

10 = Vietnamese, Korean, Guamanian, Black

11 = Hispanic

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAII

RONALD L. OBREY, JR.,	) CIVIL NO. 02-00033 MLR LEK
)
Plaintiff,	) CERTIFICATE OF SERVICE
)
v.)
)
HANSFORD T. JOHNSON, in his)
capacity as the Acting)
Secretary of the Navy,)
)
Defendant.)
)

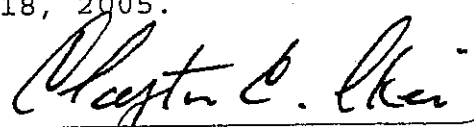
CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was duly served upon the following individuals by hand delivery to their last known address on May 18, 2005:

TO: EDWARD H. KUBO, JR.
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HANSFORD T. JOHNSON,
in his capacity as the
Acting Secretary of the Navy

DATED: Honolulu, Hawaii, May 18, 2005.



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